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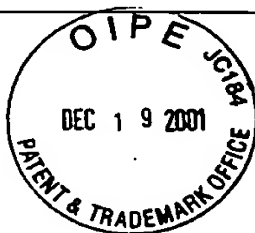
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Shen, et al.

Application No.: 09/945,116

August 31, 2001

Title: METHODS AND APPARATUS FOR  
ENCODING A VIDEO SIGNAL



Attorney Docket No.: CISC193/3930

Examiner: To Be Assigned

Group: To Be Assigned

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail to: Commissioner for Patents, Washington, DC 20231 on December 7, 2001.

Signed:

Deborah Neill

**INFORMATION DISCLOSURE STATEMENT**  
**37 CFR §§1.56 AND 1.97(b)**

Commissioner for Patents  
Washington, DC 20231

Dear Sir:

The references listed in the attached PTO Form 1449, copies of which are attached, may be material to examination of the above-identified patent application. Applicants submit these references in compliance with their duty of disclosure pursuant to 37 CFR §§1.56 and 1.97. The Examiner is requested to make these references of official record in this application.

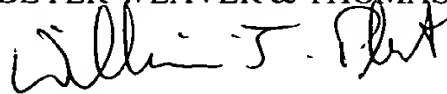
This Information Disclosure Statement is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that these references indeed constitute prior art.

This Information Disclosure Statement is: (i) filed within three (3) months of the filing date of the above-referenced application, (ii) believed to be filed before the mailing date of a first Office Action on the merits, or (iii) believed to be filed before the mailing of a first Office Action after the filing of a Request for Continued Examination under §1.114. Accordingly, it is

believed that no fees are due in connection with the filing of this Information Disclosure Statement. However, if it is determined that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 500388 (Order No. CISC193 ).

Respectfully submitted,

BEYER WEAVER & THOMAS, LLP

A handwritten signature in black ink, appearing to read "William J. Plut", is written over the printed name.

William J. Plut

Limited Recognition Under 37 C.F.R. §10.9(b)

P.O. Box 778  
Berkeley, CA 94704-0778  
(510) 843-6200

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**Expires: June 10, 2002**

  
\_\_\_\_\_  
William J. Griffin, Acting Director  
Office of Enrollment and Discipline



<b>Form 1449 (Modified)</b>  <b>Information Disclosure Statement By Applicant</b>  (Use Several Sheets if Necessary)	Atty Docket No. <b>CISCP193/3930</b>	Application No.: <b>09/945,116</b>
	Applicant: <b>Shen, et al.</b> Filing Date <b>August 31, 2001</b>	Group <b>To be advised</b>

#### U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	A						
	B						

#### Foreign Patent or Published Foreign Patent Application

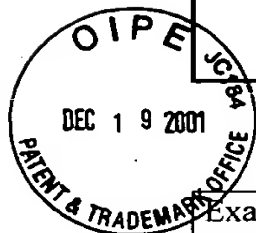
Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	C							

#### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	D	S. Aïssa and E. Dubois, "2-D-CELP Image Coding with Block-Adaptive Prediction and Variable Code-Vector Size", IEEE Trans. On Image Processing, vol. 5, no. 2, Feb. 1996.
	E	G. Bjontegaard, "H.26L Test Model Long Term Number 1 (TML-1) draft1", ITU-T SG16/Q15 document Q15-H-36d1, Aug. 1999, (downloadable via <a href="ftp://standard.pictel.com/video-site/">ftp://standard.pictel.com/video-site/</a> ), date printed: 12/08/00.
	F	M. Foodei and E. Dubois, "Coding Image Sequence Intensities Along Motion Trajectories Using EC-CELP Quantization", Proc. IEEE Intl. Conf. Image Processing, Nov. 1994.
	G	A. Gersho and R.M. Gray, "Vector Quantization and Signal Compression", Norwell, MA: Kluwer 1992, Chapter 13, Predictive Vector Quantization, pp. 487-517.
	H	A. Gersho and R.M. Gray, "Vector Quantization and Signal Compression", Norwell, MA: Kluwer 1992, Chapter 16, Adaptive Vector Quantization, pp. 587-629.
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	August 31, 2001	To be advised



### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	I	W.B. Kleijn and K.K. Paliwal, "Speech Coding and Synthesis", Elsevier, 1995, Chapter 3, Linear-Prediction based Analysis-by-Synthesis Coding, pp. 79-119.
	J	A.N. Netravali and J.D. Robbins, "Motion Compensated Television Coding: Part-I", Bell Syst. Tech. J., vol. 58, pp. 631-670, March 1979.
	K	K. Rose, H. Khalil and S.L. Regunathan, "Open-Loop Design of Predictive Vector Quantizers for Video Coding", Proc. IEEE Intl. Conf. Image Processing, Oct. 1998.
	L	J. Shen, "Efficient Motion Estimation And Quantization Algorithms For Low-Bit-Rate Video Coding", Chicago, Illinois, published April 28, 2000.
	M	J. Shen and W.Y. Chan, "A Novel Code Excited Pel-Recursive Motion Compensation Algorithm", Intl. Conf. Image Processing, Sept. 2000.
	N	J. Shen and W.Y. Chan, "Vector Quantization of Affine Motion Models", Proceeding of IEEE Intl. Conf. Image Processing, Oct. 1999.
	O	D.R. Walker and K.R. Rao, "Improved Pel-Recursive Motion Compensation", IEEE Trans. on COM, vol. 32, no. 10, pp. 1128-1134, Oct. 1984.
	P	D.R. Walker and K.R. Rao, "Motion-Compensated Coder", IEEE Trans. on COM, vol. 35, no.11, pp. 1171-1178, Nov. 1987.
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.